Linda Blessing

Introduction to Computers CMP101

Buy a Computer Assignment

11/22/2010

**Dell Studio XPS 7100 Desktop**

**Total Cost: $1986.97**

**System Details:**

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| **PROCESSOR & GRAPHICS CARD** | AMD Phenom™ IIX4 820 + ATI Radeon HD 5450 1GB |
| **OPERATING SYSTEM** | Genuine Windows® 7 Ultimate, 64bit, English |
| **WARRANTY AND SERVICE** | 3 Yr. Ltd Hardware Warranty, In-home Service after Remote Diagnosis |
| **MEMORY** | 6GB Dual Channel DDR3 SDRAM at 1333MHz – 4 DIMMS |
| **MONITOR** | 20.0” Dell ST2010-BLK HD Monitor with VGA cable |
| **HARD DRIVE** | 1TB – 7200RPM, SATA 3.0Gb/s, 16MB Cache |
| **OPTICAL DRIVE** | 16X CD/DVD Burner + Roxio Creator 10 Premier – Ultimate Burn/Authoring |
| **SPEAKERS** | Bose Companion 2 Series II Multimedia Speaker System |
| **KEYBOARD** | Dell Consumer Multimedia Keyboard |
| **MOUSE** | Dell Studio Optical Mouse |
| **SOUND CARD** | THX® TruStudio PC™ |
| **MODEM** | 56K PCI Data Fax Modem |

**Accessories:**

|  |  |
| --- | --- |
| **OFFICE SOFTWARE** | Microsoft® Office Starter 2010 |
| **SECURITY SOFTWARE** | McAfee Security Center, 15-Months |
| **TOP SELLING SOFTWARE** | Adobe Photoshop Elements 9 and Premier Elements 9 |
| **DELL PRINTER** | Dell 1250c Color LED Laser-Class Printer |
| **SERVICE & SUPPORT** | 1 Year Basic Limited Warranty and 1 Year Advanced Exchange Service |
| **STUDIO XSP 7100** | Studio XPS 7100 Minitower |
| **NETWORK CARD** | Integrated 10/100/1000 Ethernet |
| **ADOBE SOFTWARE** | Adobe® Reader 9.0 |

Information above retrieved from Dell website: [www.dell.com](http://www.dell.com) .

Our household has had a variety of computers. Approximately six months ago, my eight year old IMac was developing issues either due to a partial hard drive failure, the operating system becoming corrupt or a partial memory failure. I was unable to send or forward emails in addition to upgrading the web browser. Repair professionals encouraged not to put any more money into this device due to the age. This situation forced me to research the purchase of a new computer system; therefore it would have been beneficial for me to have taken this course last semester.

My husband and I had to decide whether to get another laptop or desktop. We decided a desktop due to our belief that a desktop would be more robust to handle the academic work I am pursuing in addition to the fact I do not have an immediate need to be mobile. Additionally, my friends working in the information technology technical field encouraged me to first evaluate my current use and future needs for a computer. This advice is very similar to the process communicated by the CNET website in the article called, “Desktop Computer Buying Guide” where it describes the 4 basic PC User types. The “General Purpose User” defines me. My needs as a college student are writing papers, compiling spreadsheets, and producing presentations. Personally, my needs are accessing email, searching the web, using the calendar for schedules and organizational tools such as keeping a budget. I am not interested in using a computer for gaming or watching movies.

There are many decisions in choosing a computer and system. Due to recently using an IMac, we began our search by visiting the MAC store. Cost deterred the purchase; however Macintosh security is superior in my opinion. I then went online to the Dell website and this brings me to my computer selection for this assignment. I am familiar with the Dell product since I currently use them at work. I chose the Dell Studio XPS 7100 Inspiron desktop which according to CNET’s Editors’ Rating of 4 Stars as one of the best mainstream desktops for best value among midrange PCs. What I was not familiar with was the many choices as to hard drive, memory, processors and graphic cards; ram, gigabits, megabits, RPMs, etc. that is included in the “configuration”.

The configuration which is defined by Wikipedia as *“an arrangement of functional* *units (the part of a central processing unit that performs the operations and calculations called for by the computer program) according to their nature, number, and chief characteristics pertaining to the choice of hardware, software, firmware, and documentation which affect system function and performance*”. For this assignment and compared to my real life choice, I increased and/or added several features. The Processor and Graphics Card (**AMD Phenom™ II X4 820 + ATI Radeon HD 5450 1GB)** is faster which increases the efficiency and performance of the applications and operations of the system. The 1 GB stands for gigabyte, which is defined by Wikipedia, “a unit of measure; a multiple of the unit byte for digital information storage. One *gigabyte* is 1,000,000,000 bytes”. The Hard Disk Drive (**1TB – 7200RPM, SATA 3.0Gb/s, 16MB Cache**) is “non-volatile storage (computer memory that can retain the stored information even when not powered) device for digital data” per Wikipedia. One TB equals 1 trillion bytes. RPM is defined by Wikipedia as “a Package Management system referring to software and the package manager itself”. R stands for Red Hat the original author. I chose an increased Memory (**6GB Dual Channel DDR3** **SDRAM at 1333MHz – 4 DIMMS**) option. RAM is the acronym for Random-Access Memory, a form of computer data storage according to Wikipedia. More memory increases overall performance and enables the computer to run more applications at the same time. I am hoping the Process, Hard Disk Drive and Memory selections above will delay in this computer what occurred in my IMac referred to at the beginning. The operating system (**Genuine Windows® 7 Ultimate, 64bit, English**) is “software, consisting of programs and data that runs on computers and manages the computer hardware and provides common services for efficient execution of various application software” (Wikipedia). The Ultimate program, according to Dell.com, “provides added security and the opportunity to work in multiple languages”. This feature would assist me when I decide to take a long desired course in Spanish. The modem defined in Wikipedia as “(**mo**dulator-**dem**odulator) is a device that modulates an analog carrier signal to encode digital information”. This assists in our home with the wireless connection for my husband’s laptop.

The additional items on the list above, such as the Optical Drive, the Sound Card and Speakers are amenities in the event I burn CDs and then enjoy the enhanced sound. The Adobe PhotoShop software is for photography and includes a 3D feature. The Warranty and Service in addition to the Service and Support will provide guidance in the event problems in function occur. A networkinterface card, as defined by Wikipedia, is “a computer hardware component that interfaces to a computer network” and will provide access to the Internet. The monitor, keyboard and mouse are all necessary components of the hardware enabling me to use the system. Most importantly the Security System is a vital item that provides protection to any financial accounts and includes antivirus software including pop-up blocker and parental controls.

This assignment has forced me to research definitions of the components of a computer and provided more clarity in how they are related. I have discovered I would have increased several options such as Memory and Hard Drive in my real-life computer purchase had I done this exercise prior to my purchase.